



November 23, 2004

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: *WC Docket No. 04-313, CC Docket No. 01-338; Triennial Review
Remand Proceeding*

Dear Ms. Dortch:

CompTel/ASCENT ("CompTel") wishes to address several recent Bell *ex partes* suggesting that the FCC should eliminate access to loop and transport UNEs, based on the availability of the Bells' tariffed special access services. The Bells understand that they cannot demonstrate that competitive carriers can self-supply high capacity loops and transport on most routes. That is why their principal claim in this proceeding is that the availability of tariffed special access services eliminates the impairment that would otherwise exist for these facilities. The Bells recognize, however, that under *USTA II*, they must demonstrate that there is little "risk of ILEC abuses" if competitive carriers are relegated to special access. *United States Telecom Ass'n v. FCC*, 359 F.3d 554, 577 (D.C. Cir. 2004) ("*USTA I*"). Thus, in a series of recent *ex parte* filings, the Bells claim that they have been forced to lower special access rates as a result of competition. See *Ex Parte* Letter from Gary Phillips, SBC, to Marlene Dortch (Nov. 10, 2004) ("11/10/04 SBC Ex Parte"); *Ex Parte* Letter from Gary Phillips, SBC, to Marlene Dortch (Nov. 5, 2004) ("11/5/04 SBC Ex Parte"); *Ex Parte* Letter from Edwin Shimizu, Verizon, to Marlene Dortch (Oct. 20, 2004) ("11/10/04 Verizon Ex Parte"). The Bells also seek to explain away the "lock-up" provisions in their special access tariffs that prevent carrier-subscribers from self-deploying their own facilities. As explained below, the Bells can make these claims only by ignoring the record evidence.

Because the Bells continue to wield special access market power, as CompTel demonstrates in the attached economic study, relegating carriers to special access service

would be devastating to competition and consumer welfare. The attached study demonstrates, using very conservative assumptions, that if the FCC were to follow the Bells' policy prescriptions and eliminate access to all DS1 and DS3 loops and transport as UNEs, and, thus, require carriers to use special access instead of making cost-based UNEs widely available, this policy would cost U.S. businesses \$130 billion and sacrifice 430,000 jobs over the next 10 years. Moreover, the Bells urge the Commission to adopt their reckless rhetoric without ever even addressing the record evidence, which belies their position.

1. In their *ex parte* filings, the Bells do not try to show that prices for special access services have, in fact, declined since they obtained "pricing flexibility." Instead, the Bells tout "proxies" that they know are meaningless. For example, SBC continues to assert that its "average" prices for DS-1 circuits has decreased over the last few years and this shows that it faces stiff special access competition. 11/10/04 SBC *Ex Parte*, Att. at 2. But the "average" price SBC calculates includes SBC's special access rates *both* in "pricing flexibility" MSAs *and* in MSAs subject to price cap regulation (and thus mandatory rate reductions). *Ex Parte* Letter from C. Frederick Beckner, AT&T, to Marlene Dortch (Nov. 8, 2004) ("11/8/04 AT&T *Ex Parte*"), Att. at 2; AT&T Reply, Selwyn Reply Dec. ¶¶ 60, 70. Thus, SBC's purported access rate "declines" are the direct result of price reductions it was *required* to make for their price capped special access services and in no way demonstrates that competition has forced it to lower rates.

More fundamentally, a decrease in average DS1 price does not remotely show that any DS1 rate has been decreased. 11/8/04 AT&T *Ex Parte* at 2. If a carrier-customer ceases purchasing DS1s at SBC's month-to-month rates and instead purchases them at SBC's lower (albeit above-cost) term rates, that would decrease the "average" DS1 price – even when SBC had not decreased any price. AT&T Reply at 83. Indeed, this shift in demand can result in a decrease in average price even where, as is the case, SBC has *raised* the price for both month-to-month and OPP special access services. As the courts have recognized, use of such a "floating-weight" standard in this context would be patently arbitrary. *See Association of Oil Pipe Lines v. FERC*, 281 F.3d 239, 241-43 (D.C. Cir 2002); *Flying J. v. FERC*, 363 F.3d 495, 497-98 (D.C. Cir. 2004).

Similarly, because the total price of a special access circuit is mileage-sensitive, the "average" DS1 price a carrier pays will depend on the "length" of the circuits a carrier purchases. In other words, if carriers purchase relatively more "shorter" access circuits, SBC's "average" price measure would improperly treat this shift in demand as a price *decrease* even when there has been no change in price at all. AT&T Reply Comments, Selwyn Reply Dec. ¶ 74. Tellingly, SBC makes no attempt to show how prices have changed on a constant-mileage basis, despite having the data to do so.¹

¹ In this regard, the record evidence suggests strongly that this flaw in SBC's analysis is significant. According to MCI, the Bells are systematically price-squeezing competitive carriers that purchase "long" access circuits. MCI Comments at 171. The result of such actions would be a relative shift towards the purchase of "shorter" circuits – and a corresponding drop in "average" DS1 price even where per unit DS1 prices had been

In its filing, Verizon trumpets a different methodology, but it too is contrived. Specifically, Verizon contends special access prices have fallen based on a study that purports to show that average special access revenues per voice-grade equivalent (“VGE”) declined faster after the Bells obtained pricing flexibility than they did when they were subject to price cap regulation. 11/10/04 Verizon *Ex Parte*, Att. 1. Even if this standard made any economic sense, it is fatal to Verizon’s position. In a recent *ex parte* filing, AT&T demonstrated that Verizon’s affiant, Dr. Taylor, made a basic computational error. 11/08/04 AT&T *Ex Parte* at 2 & Selwyn *Ex Parte* Dec. ¶ 11. Using Verizon’s own standard, but adding the numbers correctly, produces a result the precise *opposite* of what Verizon claims.

In all events, Verizon’s revenues per VGE analysis suffers from the same basic flaws as SBC’s “average” DS1 price calculations. First, the ARMIS data used by Verizon do not distinguish between special access revenues in price cap and pricing flexibility areas. *Id.* ¶ 12. The decrease in “average revenue per VGE” since 2001 claimed by Verizon are not the result of “competition” but are directly attributable to the fact that the Bells were required to reduce rates for special access services in areas still subject to price cap regulation. *Id.*

Second, revenues per VGE decreased as a result of a relative shift in demand between special access purchased at month-to-month rates and special access purchased under Bell OPPs. It is only rational that, as the Bells have raised month-to-month rates to sky-high levels, those raises have forced carriers to shift to term OPP special access services. Because these term plan rates are lower than the month-to-month rates, this lowers revenues per VGE even where Verizon has not lowered the price for any access service.

Third, Verizon inappropriately treated mere shifts in relative demand between “higher” capacity and “lower” capacity special access services as a price decrease even when there no actual price decrease. Verizon Reply, Taylor Reply ¶¶ 22-23. Indeed, Dr. Taylor effectively conceded this error, but speculates that the extent of this error is likely small. He is wrong. AT&T has demonstrated that the entirety of Verizon’s claimed reduction in average revenue per VGE since 2001 is due to the shift in relative demand between “low” and “high” capacity services. 11/8/04 AT&T *Ex Parte*, Selwyn *Ex Parte* Dec. ¶¶ 13-19.

Of course, it is quite easy to determine whether or not the Bells have raised or lowered special access prices. One need merely compare what the Bells are charging today for the same service they were providing in the past. And such a direct comparison shows that the actual prices charged by the Bells in pricing flexibility areas show that Bell special access rates have *increased* or stayed constant. *See* AT&T Reply Comments, Stith Reply, Atts. 1-2.² As a result, Bell special access rates in pricing flexibility areas

increased.

² This analysis fully rebuts SBC’s *ipsi dixit* that competitive carriers have not provided affirmative evidence that the Bells have increased special access prices. 11/5/04 SBC *Ex Parte* at 2. Likewise, while Verizon asserts that competitive carriers have only looked at

are well-above special access rates in areas where the Bells remain subject to price caps. Loop-Transport Coalition Comments at 48 & n.151 (citing affidavits); MCI Comments at 158; NuVox Comments at 44

2. The Bells fare no better in attempt to characterize their lock-up special access tariffs are “ordinary” term and volume deals. SBC contends that the “MVP does not require a customer to commit to buy a specific amount (much less all) of their total special access purchases from SBC. Rather, MVP requires only that, in order to obtain the additional discounts under that plan, carriers commit to take a specified proportion of the high-capacity services they buy from SBC as special access and not as UNEs.” 11/5/04 SBC *Ex Parte* at 4. This is mere word play. Although SBC is correct that the 95% ratio requirement of the MVP standing alone does not require a carrier customer to lock-up its traffic with SBC, what SBC ignores is that *another* provisions of the MVP directly imposes this requirement. To satisfy the MVP, a carrier customer must agree not only to limit its purchase of UNEs to no more than 5% of its total purchases from SBC, but to also requires a customer to make five-year commitment to maintain 100% of the recurring revenue it had with SBC at the time it entered into the agreement. *See* Ameritech FCC Tariff No. 2, § 19; Southwestern Bell Tel. Co. FCC Tariff No. 73, § 38; Pacific Bell Tel. Co. FCC Tariff No. 1, § 22. Moreover, the MVP provides that the minimum commitment level can only be *increased* (but never decreased), and the discounts apply *only* to the committed revenue. SBC also ignores the express requirements of its basic term plans – plans that a carrier must subscribe to in addition to the MVP in order to get SBC’s best rates. These plans provide discounts *only* to specifically identified DS1’s that are committed to on a circuit-by-circuit basis, *see, e.g.*, Ameritech FCC Tariff No. 2, § 7.4.10(A), or where a carrier has committed 90% of its historic revenues to SBC, *id.* § 7.4.13(D).

As a result, even when competitive alternatives exist, a carrier-customer purchasing special access under the MVP cannot economically use them. Doing so risks triggering the shortfall liability provisions in SBC’s tariff. The constraint imposed by the Bells’ lock-up tariffs can only be expected to strengthen as the Bells enter long distance markets and reduce competitive carriers’ market share.

And SBC does not even try to defend its recent contract tariffs that put a “bounty” on special access taken away from competitive carriers. Under this tariff, a purchaser can accrue maximal discounts only if it migrates at least 4% of its total volumes from competitive sources. SBC Contract Tariff, § 22.20.3(c). In this way, SBC is seeking to squeeze out any headroom that might exist under its existing lock-up tariffs and that could be shifted to competitive carriers.

3. On the other hand, as CompTel shows in the attached paper prepared by Dr. William Lehr of the Massachusetts Institute of Technology, and Dr. Mark Bryant,

price increases for month-to-month rates, that claim is manifestly false. 11/10/04 Verizon *Ex Parte*, Att. at 2. AT&T’s analysis also demonstrated that the Bells have increased prices for their term OPPs. *See* AT&T Reply Comments, Stith Reply, Atts. 1-2.

economic consultant, the importance of DS1 and DS3 loop and transport unbundling is not just that these elements are critical to the future of facilities-based telecommunications competition, but that there are significant economic benefits for the entire U.S. economy that will result from a clear policy which recognizes that competitive carriers are impaired without access to DS1 and DS3 level loop and transport UNEs. This study simply compares an environment where all competitors must pay special access rates with in which competitors have nondiscriminatory access to high capacity transmission UNEs. The results of this comparison couldn't be more dramatic. The annual welfare loss alone in the all-special-access environment vs. the all-UNE environment is \$13 billion. Over 10 years, the net job loss resulting from the negative welfare effects is over 430,000 jobs lost. Finally, in making this comparison, the paper uses assumptions designed to be more favorable to the Bells than the actual facts would be. For example, while most special access circuits are purchased at higher *price flex* rates, the study uniformly uses the lower *price cap* rates. Also, the study uses the "discounted" on year term rates, where a term contract was available. Thus, we avoid the Bells' criticism that their "rack rates" overstate the true price disparity between special access and UNE rates.

In conclusion, because the Bells have been unsuccessful in rebutting the obvious and compelling evidence that competitors face near ubiquitous barriers to entry without access to high capacity transmission UNEs, the Bells' have proffered specious claims as to why their monopoly-priced special access should be deemed a viable substitute for UNE access. This letter and the attached study demonstrate just how specious these claims are, in light of record evidence to the contrary, and just how dangerous it would be for the nation's economy for the Commission to accept these meretricious arguments.

Sincerely,

A handwritten signature in black ink, reading "Jonathan D. Lee". The signature is fluid and cursive, with the first name being the most prominent.

Jonathan Lee
Sr. Vice President
Regulatory Affairs

White Paper

**Eliminating Access to High Capacity UNE Loops and
Transport Will Cost U.S. Businesses \$130 Billion**

Prepared by

William Lehr, MIT

and

Mark Bryant, Economic Consultant¹

Executive Summary

The Telecommunications Act and prior FCC policy promised facilities-based competitive carriers access to high capacity DS-1 and DS-3 unbundled network elements from the incumbent carriers. Indeed just three years ago, FCC Chairman Powell characterized the lease of such lines to be the very foundation of facilities-based competition that at that time he intended to promote.² The FCC is currently considering whether to reverse its prior pro-competitive policy. If it does so, facilities-based competition will be dealt a severe blow. Competitive carriers and their business enterprise customers would be required to pay substantially more for basic infrastructure services. Over the next 10 years, this would cost U.S. businesses \$130 billion and will sacrifice the creation of over 426,000 new jobs. Additionally, it is likely that much of the local telephone competition presently serving business customers would evaporate, mirroring the retrenchment we have already seen in competitive service to mass market customers that followed the roll-back of UNE-P access.

¹ The authors would like to acknowledge the financial support of members of CompTel/ASCENT in preparing this white paper.

² *Remarks by Michael K. Powell, Chairman, Federal Communications Commission, to the Association for Local Telecommunication Services, Crystal City, Virginia, November 30, 2001* (available at: <http://www.fcc.gov/Speeches/Powell/2001/spmkip111.html>). (“The FCC recognizes the importance of unbundled loops and other UNEs to competitors hoping to enter local markets. ... I am guided by a strong belief in facilities-based competition. I have consistently expressed my view that facilities providers, like you, are the key to robust competition. Facilities-based competitors offer the promise of more substantial and enduring investment in local markets. ... You should understand that when I speak of facilities-based providers we mean YOU, not just full facilities providers like cable companies. I recognize that access to the loop, critical network elements, and collocations remain important.” *emphasis in the original*)

I. Introduction

The principal goal of the Telecommunication Act of 1996 (TA96) was to enable competition in local telecommunications markets. Recognizing the divergence of circumstances surrounding customer demand (e.g., residence, small business, large business), technologies and costs (e.g., urban, suburban, rural), the TA96 directed government policymakers to draft regulations supporting the development of competitive entry by three complementary modes: 1) on a non-facilities resale basis, 2) on a complete span of unbundled network elements (UNE) basis, and 3) on an own-facilities basis.

Due to the high costs and attendant inefficiency in fully duplicating incumbent local exchange carrier (ILEC) plant, it was expected that facilities-based competitive entry would need to rely heavily on access to: (a) in-place ILEC loop facilities linking customer locations with their end office wire center; and (b) ILEC transport facilities linking these scattered end office wire centers with large aggregation wire centers. To the extent that government policymakers were successful in enabling this facilities-based competitive entry, reductions in customer prices, increased investment in local access infrastructure, enhanced innovation, and improvements in service quality and network efficiency were anticipated.

Over the last year, prospects for mass-market local telephone competition have dimmed substantially. Having already been devastated by the telecom industry meltdown and general economic recession that began in 2000, local telephone competition has been dealt a series of severe blows by government regulators. Following an ill-informed anti-competitive policy interpretation by an activist D.C. Appeals Court panel, the Federal Communications Commission (FCC) under the guidance of its chairman Michael Powell, decided to abandon the TA96's market opening policies with respect to mass-market local services that required access to the full suite of ILEC UNEs. This decision has already caused the evaporation of competitive activity and customer benefits in mass markets. Even the largest competitive local exchange carriers (CLECs) have rationally reacted to this government policy reversal by discontinuing their efforts to expand service to consumer and small business markets, resulting in layoffs for the tens of thousands of workers who were dedicated to these efforts.³

³ MCI has announced that it is planning to significantly scale back its mass market operations and to eliminate 16,000 jobs (Andrew Sorkin and Ken Belson, "Executives say MCI is looking for buyers," *New York Times*, September 20, 2004). AT&T similarly has announced plans to retreat from mass market telecommunication services, and large layoffs are expected ("AT&T's CEO Puts Positive Spin on Negative Move," *Telecom Policy Report*, Vol. 9, Issue 29, July 28, 2004). These further reductions are on top of three years of large cuts in telecommunications sector employment (Gubbins, Ed, "Jobs Grow, but Telecom Gets Left Behind," *Telephony*, vol. 244, no. 10, May 17, 2004). Recently, AT&T announced further significant layoffs (Richtel, Matt and Ken Belson, "AT&T Cuts Jobs at Call Centers as It Struggles to Regroup," *New York Times*, September 25, 2004 and "AT&T to Cut 12,000 Jobs This Year," *Los Angeles Times*, October 8, 2004).

Government regulators are now poised similarly to roll back the TA96's market opening provisions with respect to facilities-based competitors addressing markets for enterprise-level business local services. These carriers have made substantial infrastructure investments in voice and data switches and interoffice transport facilities to serve enterprise customers. But CLECs still must lease ILEC loop and transport facilities at network edges to connect enterprise business customer locations to the core of their competitive networks. This is because competitive facilities do not yet extend throughout the ILECs' serving areas to reach all wire centers and all customer locations. Without unbundled access to these high capacity ILEC facilities, much of these CLECs' investments will be effectively stranded. In spite of this need, some government regulators are proposing to eliminate CLEC access to high capacity loop and transport UNEs. If they succeed, the ramifications are likely to be severe.

Unless the FCC and administration quickly reinstate their support for policies promoting the availability of high capacity UNE loops and transport to facilities-based CLECs, we can expect similar negative effects on capital formation and employment from a withdrawal of competitive local service to commercial enterprise telephone service customers as we are seeing currently from its withdrawal from mass market customers. Indeed, denying CLECs UNE access to high capacity DS-1 and DS-3 loops⁴ and transport will cost American businesses over \$130 billion over the next ten years and sacrificing the creation of 426,000 new jobs.

II. Background

At each step along the path to competition in telecommunication services -- in customer premise equipment, in long distance telephone service, and in mobile telephone services -- pro-competitive regulatory policies have played a crucial role in facilitating the transition to and emergence of effective competition. For example, the transition to robust competition in long distance services depended on the implementation of equal access and asymmetric regulation of the dominant carrier that lasted for over a decade following the divestiture of the Bell System.

The unbundled network element policies adopted by the TA96 were intended to play a central role in eliminating regulatory and economic barriers to entry into local telephone services. By requiring ILECs to provide competitive access to their network facilities on an equivalent and non-discriminatory basis at rates that reflected the true economic costs of providing such access, the UNE rules sought to eliminate the risk to future competition posed by the monopoly legacy. When facilities are priced at their

⁴ DS-1 circuits are digital circuits that carry a 1.5 Mbps signal simultaneously in both upstream and downstream directions. These circuits may be used to carry just data telecommunications services, just voice telecommunications services, or a combination of the two services. If a DS-1 circuit is dedicated solely to voice services, it can carry between 24 and 96 voice lines -- depending on the chosen degree of concentration. DS-3 circuits are digital circuits that have 28 times the bandwidth (45 Mbps) of a DS-1 circuit. Expressed on a voice channel equivalent basis, a DS-3 circuit can carry between 672 and 2688 voice lines -- depending on concentration.

long-run economic cost, all providers – the ILEC and the CLECs – face similar economic incentives to invest in new infrastructure, or when appropriate, to use the existing network efficiently. Importantly, long-run economic cost pricing is substantially above an ILEC’s own cost of using its embedded network infrastructure because most of the investment is sunk and much has already been recovered during the previous decades of monopoly regulation.

The UNE rules do not eliminate (nor were they ever intended to eliminate) all of the cost disadvantages faced by CLECs entering new telecommunications markets. These carriers must bear the substantial challenge of building a brand and of funding the high fixed and sunk costs of their market entry until such time as they are able to establish an efficient scale of operation. In modern telecommunications, the scale necessary to achieve efficiencies similar to those enjoyed by the ILEC are quite high. In its *Triennial Review Order* issued in August 2003, the FCC found that it was unlikely for a CLEC efficiently to deploy its own high capacity loops to reach customers demanding fewer than three DS-3s of capacity.⁵ The role of the UNE rules is to reduce the costs of complementary facilities investment (*e.g.*, by allowing CLECs to efficiently stage the build-out of their facilities or to share pre-existing network facilities when existing capacity is adequate to meet market needs) and by helping to protect complementary CLEC investment from ILEC predation. For CLECs serving business enterprise customers, the most critical UNEs are high capacity loops and transport. These facilities are the copper and fiber cables that have been augmented with sophisticated digital electronics that permit them to support multiple voice telephone lines as well as high speed data communications services that are used by business customers. Such lines run between customer premises and their local ILEC end office wire center, as well as between the 20,000+ existing ILEC wire centers.

Permitting CLECs use of these existing facilities allows them to build their networks in an economically sound fashion outwards from their dense cores – rather than dissipating their initial investments on “edge” facilities that will be underused (at least in the near term) and represent uneconomic duplication of in-place ILEC facilities. UNE access rules also complement other regulatory controls such as imputation rules and line of business restrictions. As these other rules are also being relaxed, the danger to competition from further rolling back UNEs is even greater.

The economic case for requiring UNE access at economic cost to the bottleneck facilities provided by the ILECs has already been made numerous times. Indeed, acceptance of these arguments is what led Congress to pass the TA96. The TA96 provided a bold roadmap based on resale, UNEs, facilities interconnection and TELRIC economic pricing for transitioning from monopoly to competition and deregulation. The

⁵ *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, In the matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Federal Communications Commission, CC Docket No. 01-338, Released August 21, 2003, ¶ 324 (hereafter referred to as the “*FCC Triennial Review Order*”). Three DS-3s support a throughput of over 135 Mbps, which is more capacity than is needed by all but the very largest customer locations.

FCC's radical abandonment of this roadmap has substantially increased regulatory uncertainty and diminished prospects for the emergence of effective local competition. This is doubly troubling since so much of the necessary ILEC and CLEC investment to enable UNE wholesale markets is already sunk (*e.g.*, the operations support systems (OSS) have mostly been implemented and CLECs have installed substantial local switching and interoffice transport facilities to make use of the UNEs).⁶ The promise of the TA96 is being abandoned just as wholesale markets for local access facilities were beginning to emerge. Additionally, the increased regulatory uncertainty associated with this inconsistent and changing government policy increases the capital costs to any entrants which might be so bold as to contemplate local entry in the future.

Under Chairman Powell's leadership, the FCC has started the wholesale rollback of these rules. Rolling back these rules enables the ILECs to leverage their legacy local monopolies into adjacent markets for long distance and data communications, posing a severe threat to competition all along the telecom value chain. With the elimination of DSL line sharing, prospects for effective broadband competition based on the ILECs' copper loop infrastructure were greatly diminished. The U.S. now ranks tenth among the developed countries in broadband penetration.⁷

More recently, with the FCC's decision to eliminate CLEC access to a complete platform of UNE services (UNE-P), prospects for CLEC competition in mass markets and, especially for residential customers, was dealt a likely mortal blow. During the five years from mid-1999 through mid-2004 when competitive UNE-P service was available, residential customers' telephone bills dropped by roughly \$11 per month – amounting to \$11 billion in annual savings.⁸ Since the current administration's announcement in June that it would no longer defend CLEC access to UNE-P, numerous CLECs already have announced plans to scale back or shelve their market entry plans – and residential retail prices are beginning to tick upward.⁹ Without UNE-P, there is no prospect for significant

⁶ Similarly troubling to most observers is that this rollback of local market opening initiatives is occurring immediately on the heels of the FCC granting complete relief for the ILECs to enter the long distance markets from which they had previously been quarantined. Indeed, these now-disappearing local market opening rules were the very predicate of this long distance relief.

⁷ See Chart 14 in "Availability of Advanced Telecommunications Capability in the United States, Fourth Report to Congress," Federal Communications Commission, September 9, 2004 and Organization for Economic Cooperation and Development report on broadband access in OECD countries per 100 inhabitants, December 2003 (available at: http://www.oecd.org/document/31/0,2340,en_2649_34225_32248351_1_1_1_1,00.html).

⁸ See "Consumers Spent \$11 Billion Less in 2003 than Before Competition," Press Release, CompTel/Ascent, March 15, 2004 (available at: <http://www.comptelascent.org/news/recent-news/031504.html>).

⁹ For example, Alltel has announced plans to scrap its Florida CLEC (Gubbins, Ed, "Jobs Grow, but Telecom Gets Left Behind," *Telephony*, vol. 244, no. 10, May 17, 2004) and MCI and AT&T have both announced plans to scale back their mass market operations (see note 3, *supra*). These competitive exits have already resulted in retail price increases from the ILECs. For example, according to Bank of America Securities, "Wireline Services Pricing Update," June 9, 2004, SBC added a \$2 per month charge for flat rate \$0.07 per minute long distance and eliminated its "just

mass market competition – the margins available for serving these consumers generally are simply too small to allow economically viable competitive entry by either full facilities CLECs or CLECs relying only upon leased UNE loops.

Now, the FCC is considering ending competitors' access to high capacity DS1 and DS3 loops and transport under UNE tariffs. These high capacity ILEC facilities are used to backhaul customer lines to CLEC wire centers by CLECs that have already deployed their own switches and interoffice transport and signaling networks. Thus, these UNEs are of critical importance in serving commercial customers. CLECs counted on availability to these facilities in order to justify the infrastructure investments they have made to date.¹⁰ It is a cruel paradox that the fact that these investments were made should now be used to justify removing access to UNEs that are necessary to make these facilities economically viable. Adopting further restrictions on access to these high capacity UNEs or extinguishing just-granted opportunities to convert high-cost stopgap special access facilities into UNEs would effectively eviscerate the TA96's market opening provisions that apply to facilities-based CLECs.

Effective access to high-capacity UNE loops and transport could realize direct economic benefits that are conservatively worth \$130 billion over the next ten years, or \$13 billion per year (see Table 4). These estimates are conservative because they focus only on the market for DS-1 and DS-3 high capacity services, and ignore the negative spillovers for competition in other enterprise business telecommunication service markets. Moreover, this estimate does not take into account the indirect benefits of expanded competition in telecommunications services for the entire economy. Increased competition in basic telecommunications infrastructure services drives innovation and U.S. global competitiveness, contributing to economic growth.

III. UNE access to High Cap Loops offers billions in benefits

Some policymakers have suggested that access to high capacity UNE loops and transport is not competitively important. This may be for several reasons. They may

all 3 cents" plan. The lowest flat-rate plan SBC now offers is \$0.05 per minute. SBC also lowered its 500-minute bucket plan to 400 minutes, is charging \$2 more per month for this plan, and is now charging \$0.07 for additional minutes versus only \$0.05 per minute in 1Q04. Bank of America Securities also reports that BellSouth raised the price of its unlimited local plan from \$15.40 to \$17.45. For long distance, BellSouth upped the basic per-minute rate for subscribers with no plan to \$0.18 from \$0.14. Furthermore, in Washington state, Verizon is seeking an increase the basic monthly rate from \$13 to \$22.80 for residential customers and from \$29.70 to \$39.50 for business customers (*see Verizon Proposes New Telephone Rates*, Verizon Press Release on PRNewswire, July 23, 2004).

¹⁰ CLEC investors' letters to FCC Chairman Michael Powell, noting CLECs' critical reliance on leased high capacity UNE facilities were filed with the FCC on July 22, 2004, July 28, 2004 and August 5, 2004 and are available at:

http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516285090,
http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516285873,
http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516286648.

(falsely) believe that the economics of serving business customers are such that robust competition already exists. That is, all enterprise customer locations are accessible via CLEC-built facilities on an economic basis and offer enough revenues to finance the build-out of multiple independent CLEC networks. Alternatively, these policymakers may believe (again, falsely) that when it is not economic for CLECs to construct their own facilities, CLECs may economically rely on special access facilities leased from the ILECs, making UNEs redundant and unnecessary. Or, finally, it is possible that policymakers do not view the large commercial customers who purchase services offered via high capacity loops and transport as in need of regulatory protection. Proponents of this perspective point to the fact that CLECs have targeted business customers more intensively than residential customers, with the result that CLEC penetration is twice as high for commercial customers as it is among the lower-margin residential customers; or point to the success of CATV companies in acquiring subscribers to their cable modem data services as evidence that competitive options in these markets are widespread. Taken together, these arguments undergird these policymakers' apparent view that the elimination of high capacity UNE loops and transport would not have a significant negative economic impact.

This view is wrong. The "cost" suffered by business customers and the economy is not just that occasioned by further reductions in access to efficient UNEs, but includes the potential economic benefits that will fail to be realized by not ensuring widespread UNE access. If one makes the conservative assumption that current UNE rates provide a reasonable proxy for economic cost,¹¹ which in turn provides a proxy for the rates that would prevail were there effective local competition, then the current regime is costing enterprise customers of high capacity loops and transport over \$10.5 billion per year in excess monopoly payments (see Table 3).¹² Eliminating these excess payments by moving prices towards competitive levels would stimulate additional demand, which would deliver more than \$2.4 billion in additional annual surplus (see Table 4 consumer surplus increase over and above Table 3 current excess payments). Taken together, the total cost of over-pricing high-capacity loops results in an annual economic loss to American business of nearly \$13 billion. The overall impact on the economy is larger because higher infrastructure costs for business enterprises translate into fewer jobs, slower economic growth, and higher retail prices for finished goods and services.

¹¹ This assumption is, of course, too optimistic. While most states have set high capacity loop and transport rates with respect to UNE proceedings grounded in economics-based estimates of cost, some states have simply imported their pre-existing special access rates that are without regard to economic cost, and exceed it greatly.

¹² This is computed as (Special Access price – UNE price)*(Total DS1 or DS3 access lines in service). This calculation does not include the demand stimulus effect of reducing rates and it assumes that negligible number of high capacity facilities are currently provisioned as UNEs. Verizon claims that roughly 95% of all high capacity lines are provisioned as special access (*ex parte* letter from Edwin J. Shimizu, Verizon to Ms. Marlene H. Dortch, Secretary, FCC in WC Dkt. No. 04-313 and CC Dkt. No. 01-338, September 28, 2004).

The presumption that commercial customers do not need UNE access because they already face effective competition for their voice and data service demand fails to recognize several facts. The CLEC competition that exists is a direct result of the UNE rules that are now in jeopardy. Moreover, as explained in the following section, the heavy current reliance of CLECs on special access instead of UNEs to serve high capacity demand is largely an historical artifact. Economic access to UNEs has only recently become available.

Finally, the success of CATV companies offering cable modem service to residential customers does not provide evidence that the market for commercial data service using DS-1 and DS-3 circuits is competitive. The data services offered by cable modems have extremely limited upstream capacity relative to even single DS-1 services offered by ILECs – let alone multiple DS-1 or DS-3 services. In addition, cable modem architectures are shared network architectures that prevent these services from guaranteeing minimum levels of throughput or providing adequate levels of security and reliability to large-scale commercial customers.

IV. Special Access has not been an effective substitute

As explained above, the fact that certain CLECs currently use special access facilities instead of UNEs, even when UNEs are putatively available does not demonstrate that special access is an acceptable substitute. There are several reasons. The most basic is because DS-1 and DS-3 special access is typically priced at a substantial non-cost-based premium to the equivalent UNE services. This premium has both limited greatly the portion of the commercial market that CLECs have been able to address and has forced these customers to pay excessive rates that have repressed their demand. Furthermore, with UNE obligations extinguished and the increased special access pricing flexibility now granted to ILECs, the CLECs can anticipate that the ILECs will act to make special access an even less attractive alternative for high capacity access.

As noted earlier, many CLECs have been forced to rely on special access to connect to high volume commercial customers. Historically, this is has been because ILECs have failed to make appropriately-priced UNEs available. ILECs have argued that insufficient facilities were available, denied their obligation to combine UNE loops with UNE transport, or claimed that the presence of any interexchange use on the circuit contaminates its eligibility for UNE rate treatment.¹³ Even though policymakers have repeatedly rejected such rationales for denying access to UNEs, the net effect has been to render UNE access difficult to obtain until relatively recently.¹⁴ Even when high-capacity UNEs have been made available, they have not been provisioned in a timely fashion or with the reliability necessary to make them acceptable for mission-critical enterprise

¹³ See “Joint Comments of the Loop & Transport CLEC Coalition” in the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, WC Dkt. No. 04-313, (filed October 4, 2004), pp. 52-60 and accompanying affidavits.

¹⁴ *Id.* and *FCC Triennial Review Order* at ¶¶ 569-646.

applications.¹⁵ Consequently, CLECs have been forced to accept special access connectivity to their customers as the only available alternative.

When special access has been used, its premium price ensures that its use is limited to only the highest margin customers, denying the majority of enterprise customers the benefits of competition. As demonstrated in appendix Table 1 and Figures 1 and 2, the premium paid for special access relative to UNE rates is typically over 100%.

Furthermore it is reasonable to expect that without the preservation and expansion of UNE access, special access will become an even less attractive option for providing competitive access to high capacity services. With the granting of interexchange relief to the ILECs under Section 271 of TA96, the ILECs have gained an even larger incentive and opportunity to leverage their local monopoly power into additional markets. With the sunset of the separate subsidiary requirements and the granting of additional pricing flexibility, the ILECs will be able to more effectively engage in selective predatory pricing against CLECs. Although a strong imputation rule would help mitigate the risk from such anticompetitive behavior, it will not eliminate it. Higher prices for special access will augment the ILECs' already large pool of excess monopoly profits that are available to fund their efforts to protect and extend their monopoly power in enterprise telecommunication services.

V. Eliminating the promise of high capacity UNE access will harm competition

Eliminating the promise of effective high capacity UNE access will harm competition, drive up the prices that U.S. business must pay for their telecommunications services and damage U.S. investment and global competitiveness. In the past, when UNE access was not functionally feasible (*e.g.*, because appropriate wholesale market mechanisms and regulatory rules were not yet in place) or economically viable (*e.g.*, because rates were substantially above appropriate economic cost levels), the mandate to offer UNEs only impacted the competition prospectively. That is, CLECs entered on the promise and hope that policymakers would effectively implement the TA96, but were forced initially to use less efficient substitutes for UNEs. If recent opportunities to order high capacity services as UNEs are rescinded, and promised opportunities to convert circuits initially ordered as special access to UNEs are extinguished, competition for commercial services based on high capacity DS-1 and DS-3 UNEs will be dealt a mortal blow.

It is ironic, but perhaps not surprising, that precisely when the market is poised to take advantage of high capacity UNE access to deliver the competitive benefits promised by the TA96 that the FCC considers eliminating such access.¹⁶ This change in course

¹⁵ *Id.*

¹⁶ The well-known, but under-appreciated chronology of ILEC reaction to the market-opening provisions of TA96 was first to resist provision of all UNEs. When it became apparent that without UNEs, there would be no competitive entry adequate for the ILECs to demonstrate that they were entitled to Section 271 relief to enter long distance markets, the ILECs relented and

significantly increases regulatory uncertainty and raises CLEC investment and operating costs. The shock in costs is forcing carriers to reverse their market entry plans, which sows market confusion, damages nascent CLEC brand images, impairs their access to investor capital and hollows out still further their ability to bring competitive choice to commercial telecommunications markets.

Scaling back access to high capacity DS-1 and DS-3 UNEs will raise CLEC costs. Low margin customers who might otherwise have benefited from CLEC competition will remain captives of monopolist ILECs. And, higher margin commercial customers will see a withering of CLEC competition, and pay higher prices for their retail high capacity telecommunications services. As noted above, this change will cost American businesses \$130 billion over the next ten years. Conservatively, this will sacrifice the creation of over 426,000 new jobs, and will reduce investment and imperil U.S. competitiveness in the global economy.¹⁷

began to establish the OSS and cost-based rates necessary to enable UNE-based competitive entry. But now upon receiving long distance authorization, they are making every effort to eliminate the UNE access that was intended to be the “irreversible” predicate for their relief.

¹⁷ The calculation of these estimates is explained in the accompanying methodological appendix.

Methodology Appendix¹⁸

This study estimates the direct cost to American businesses if CLECs are denied access to UNEs for high-capacity DS-1 and DS-3 services. In the absence of such UNEs, CLECs that wish to continue to serve enterprise customers would need to use much higher priced special access services. In contrast, if UNEs are available at cost-based rates, the benefits of the increased competition passed through to end-users through reductions in the retail price of DS-1 and DS-3 services may equal in magnitude the difference between current special access and UNE rates for DS-1 and DS-3 services. In addition to benefiting from lower prices, American business demand for telecommunications services would expand and total surplus generated would increase by the amount of the deadweight economic loss associated with the above-cost pricing of special access services.

Cost Impact of Eliminating High Capacity UNEs

To measure the direct cost impact of eliminating high capacity UNEs, data were gathered on the prices charged by ILECs for DS-1 and DS-3 services when these services are provided as UNEs, and when they are provided as special access.

Prices for DS-1 and DS-3 UNE loops and DS-1 and DS-3 UNE dedicated transport were collected several sources. These include approved interconnection agreements between ILECs and CLECs, ILEC Statements of Generally Available Terms (SGATs), and state PUC-approved tariffs. Where DS-1 Enhanced Extended Loops (EELs) were offered in a particular state, those rates were used. Where EELs were not offered, rates for DS-1 UNE loops and DS-1 UNE dedicated transport were combined and used instead. A total circuit cost was developed by assuming an average transport distance of fifteen miles from the customer's serving wire center to the CLEC's serving wire center.¹⁹

Special access rates for DS-1 and DS-3 loops (channel terminations) and transport (channel mileage) were obtained from each ILEC's current interstate special access *price cap* tariff. The same assumptions were made about circuit length as with UNEs. Where the ILEC special access tariffs provided for discounted rates if term commitment contracts are accepted by the CLEC, one-year commitment rates were used for purposes of this study. Because UNE rates are generally month-to-month rates, use of one-year term rates for special access (which entail significant penalties for early termination) will tend to understate the economic disadvantages to CLECs from being forced to use special access. Note, too, that high capacity loops are always customer-specific, and high capacity transport is nearly always customer-specific. Thus, the ability of a CLEC to take advantage of a term plan discount for special access is limited by its ability to convince its retail customers to agree to a retail purchase contract of equal length. Given the

¹⁸ The data for this analysis and its computations were prepared by Mark Bryant.

¹⁹ This distance is frequently used in analyses performed to investigate costing, pricing and profitability issues in high capacity loop and transport markets.

increasing churn in telecommunications markets due to competition, this may be difficult to achieve.

The study compares the recurring costs of obtaining high capacity access facilities in geographic Zone 1 (urban) as UNEs and as special access. It does not consider non-recurring costs or rates in lower density zones where fewer businesses are located. Because the FCC generally has granted the ILECs pricing flexibility for the special access services that they sell in these urban (presumably more competitive) areas, the ILECs typically sell their zone 1 special access under *pricing flexibility* rather than *price cap* tariffs. Although it is contrary to the normal economic expectation that in more competitive zones pricing flexibility should result in lower rates, the ILECs have used this pricing flexibility to *increase* rates for special access in these zones, in many cases quite substantially.²⁰ Thus, this study's comparison use of *price cap* special access rates is likely to understate substantially the calculated cost disadvantage to CLECs from forcing them to use special access.

The price premium associated with leasing high capacity facilities under special access as opposed to UNE tariffs in each of the Bell company operating regions is presented in Table 1 and graphically in Figures 1 and 2 below:²¹

Table 1
UNE Rates vs. Special Access Rates

	BellSouth	Qwest	SBC	Verizon	US Average
DS-1 SpAcc rate	\$483	\$351	\$453	\$526	\$470
DS-1 UNE rate	\$198	\$165	\$156	\$180	\$172
<i>DS-1 Premium</i>	<i>\$285</i>	<i>\$186</i>	<i>\$296</i>	<i>\$346</i>	<i>\$299</i>
DS-3 SpAcc rate	\$4,715	\$2,259	\$3,357	\$4,988	\$3,966
DS-3 UNE rate	\$1,825	\$1,170	\$1,932	\$1,601	\$1,773
<i>DS-3 Premium</i>	<i>\$2,890</i>	<i>\$1,089</i>	<i>\$1,425</i>	<i>\$3,387</i>	<i>\$2,193</i>

²⁰ See Letter from Brian Moir, Chairman of the Special Access Reform Coalition ("SPARC") to Chairman Michael Powell, September 2, 2004, RM Docket No. 10593 (showing that rates for DS-1 and DS-3 Special Access Services under pricing flexibility were from 11% to 32% higher than the tariffed rates for the same services) and Economics and Technology, "Competition in Special Access Markets: Reality or Illusion," August 2004, pp. 35-38.

²¹ The Bell company averages were computed using the share of special access lines by state (provided from ARMIS data) to weight the rate differences in each state.

Figure 1

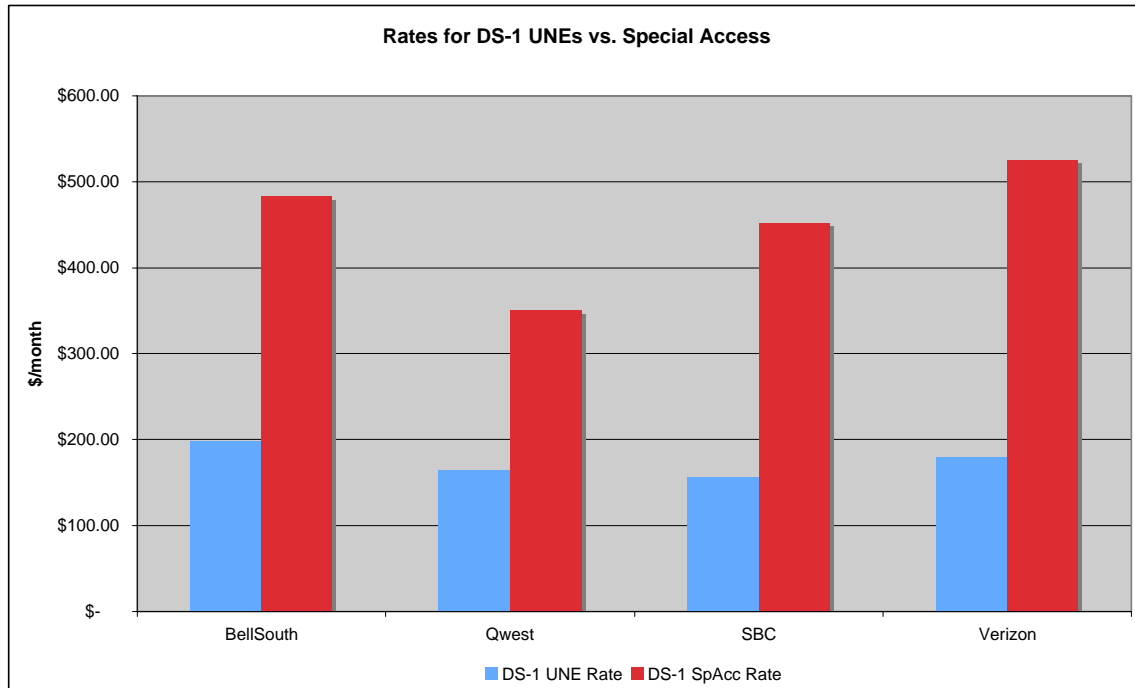
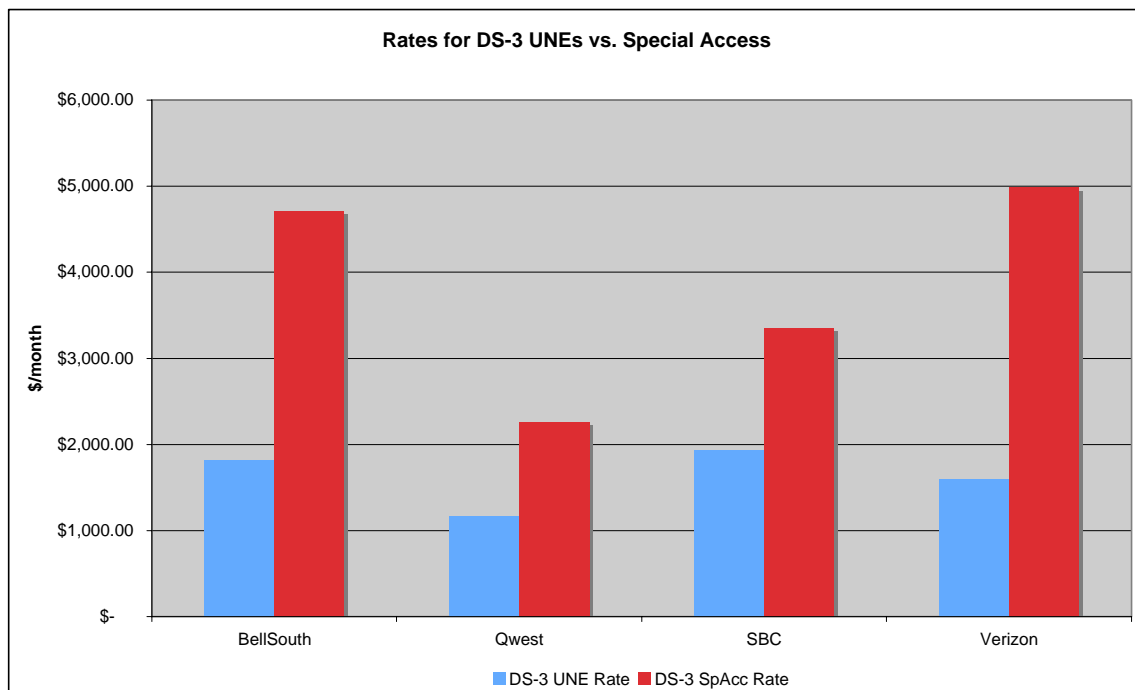


Figure 2



Nationwide the weighted average cost increase associated with special access versus UNEs is \$299 per DS-1 per month and \$2,193 per DS-3 per month – a net increase in the wholesale rate of 174% and 124%, respectively.²² The increase would be lower but still in excess of 100% even if the special access were purchased under the larger discounts available under three year term plans.²³ Additionally, the focus on national or Bell company average cost differences obscures the fact that the discrepancy is substantially higher in a number of markets.

Size of Market for DS-1 and DS-3 Services

Little publicly-available information is available on the number of DS-1 services provided either by ILECs or CLECs. Existing FCC reporting mechanisms generally require reporting special access service volumes in terms of voice-grade equivalents (VGEs) – that is, the total equivalent number of 4 KHz analog circuits or 64 Kbps digital circuits provisioned by carriers, regardless of the service configurations in which these circuits are provided.

One Bell company – BellSouth – does report the number of DS-1 services that it provides within its operating territory as a part of its annual report to shareholders. To estimate the number of DS-1 services provided by each Bell, the ratio of BellSouth’s reported DS-1 service sales to the total number of VGE circuits in its overall network was applied to the VGE circuit counts reported by each Bell. Because BellSouth territory is not as business-intensive as that of the two largest Bells (Verizon and SBC), it is likely that use of this BellSouth DS-1 to VGE ratio understates the total national number of DS-1 circuits.

CLEC DS-1 services were estimated by using data reported by the FCC on CLEC market share.²⁴ The FCC develops VGE market shares for the ILECs and CLECs separately for residential/small business customers (business customers with three or fewer lines) and for “other” customers (all customers not included in the residential/small business) category. The most recent market share figure of 23.2% for the “other” category was used in this study, as it is likely more representative of CLEC market share penetration for DS-1 services than the residential/small business market share figure.

Table 2 presents the estimated number of DS-1 services provided by CLECs and ILECs. The nationwide market is estimated at slightly over two million DS-1 services.

²² Comparison of the special access rates employed in this analysis with those reported by UBS Investment Research in “Paying to Play? How Access Charges Determine Winners and Losers in Telecom Services,” April 2, 2004 (“*UBS Analysis*”), suggests that the special access rates used in our analysis are conservatively low.

²³ That is, for the DS-1 circuit, the cost increase would be \$199.74 which is 116% higher.

²⁴ Table 2 in the FCC’s biannual report on *Local Telephone Competition* (available at: <http://www.fcc.gov/wcb/iatd/comp.html>).

Table 2
Size of High Capacity Markets

Regional Footprint	Total DS1 Services	Total DS3 Services
BellSouth	360,064	22,460
Qwest	249,594	15,569
SBC	783,494	48,873
Verizon	623,393	38,886
Total	2,016,545	125,789

The size of the market for DS-3 services was estimated based on relative DS-3 to DS-1 demand projections provided in a Gartner DataQuest report on the U.S. telecommunications market.²⁵ This report shows DS-3 service demand to be approximately 6.3% of DS-1 service demand. This percentage factor was applied to the DS-1 demands developed in the first data column of Table 2 to derive estimates DS-3 service demand nationwide. These figures are displayed in the final column of Table 2.

If access to DS-1 and DS-3 UNEs is curtailed and CLEC services are required to use special access as their high capacity access input, the implied cost increase to CLECs will be the difference between UNE and special access rates. This calculation is displayed in Table 3.

²⁵ "Fixed Public Network Services: United States, 2000-2006." Gartner DataQuest, 2002. Table 1-1.

Table 3
Input Cost Differential: Special Access vs. UNE Rates

	DS1	DS3	Total
Weighted average SpAcc rate	\$470.29	\$3,966.30	
Weighted average UNE rate	\$171.67	\$1,773.14	
SpAcc – UNE rate differential	\$298.62	\$2,193.16	
Lines of service	2,016,545	125,789	
Annual cost difference	\$7,226,270,109	\$3,310,492,274	\$10,536,762,383
Cumulative over 10 years	\$72,262,701,090	\$33,104,922,740	\$105,367,623,830

Effects on DS-1 and DS-3-Based Retail Services

We assume that a fully competitive retail market for high capacity-based services will result in a new retail price that equals the old retail price adjusted by the full amount of the input price change. The new level of sales will be the old level of sales adjusted by the amount of demand stimulation or repression that results from the change in retail price. A demand elasticity is used to calculate this stimulation or repression. This analysis assumes DS-1 demand elasticity to be -1.31 and DS-3 demand elasticity to be -1.91.²⁶ These elasticities suggest that every 1% increase in high capacity input prices results in a 1.31% reduction in DS-1-related retail service demand and a 1.91% reduction in DS-3-related retail service demand.

In addition to the above analysis as to the percentage effects on retail prices and quantities from changes in input costs, data as to the level of current retail prices for high capacity services are also required. UBS estimates special access costs to be more than 50% of special access-related business services retail revenues.²⁷ While the FCC gathers and publishes some information on average rates, its data collection activities generally focus on rates for services used by residential consumers.

A recent study sponsored by the Small Business Administration, however, does provide one estimate of the rates charged to small businesses for DS-1-based and other telecommunications services.²⁸ Firms responding to the study's survey reported unit

²⁶ These elasticity figures for high capacity services are taken from Rappaport, Paul N., Lester D. Taylor, Arthur S. Menko, Thomas L. Brand. "Macroeconomic Benefits from a Reduction in Special Access Pricing." June 12, 2003, p. 6.

²⁷ *UBS Analysis*

²⁸ Pociask, Stephen B. "A Survey of Small Businesses' Telecommunication Use and Spending." SBA Office of Advocacy, March 2004.

monthly expenditures for DS-1 service of an average of \$559.61.²⁹ When this DS-1 service was provided by an ILEC expenditure was higher (\$798.80) than this average,³⁰ when the service was provided by a CLEC, it was lower (\$388.75).³¹ These figures are roughly consistent with the UBS estimates.

Of course, DS-1 or DS-3 loop and transport service is only one component of the total package of retail telecommunications services purchased by business customers. The service package also will include local and long distance services, features such as conference calling or voice mail, and Internet services. Estimates of pricing for such packages of services were obtained from various Internet web sites that provide quotes from several service vendors for service packages.³² The prices quoted for service packages including local and long distance service for 6 lines, with DS-1 rate Internet access, ranged from approximately \$800 to \$1,900. Similarly, prices quoted for DS-3 services ranged from \$5,000 to \$14,000 per month. For purposes of this study, an estimated average monthly price for the DS-1 service package of \$900 was used, and a price of \$8,000 was used for the DS-3 service package. Note, however, that the recurring rates charged for DS-1 and DS-3 UNE loops and transport are only one cost faced by CLECs in providing integrated telecommunications services. Substantial costs also are incurred to pay ILEC non-recurring costs for high capacity inputs, in operating switching and long distance transport facilities, in providing Internet connectivity, in provisioning vertical services such as voice mail and conferencing, and in marketing, billing, and selling services.

The economic impact of potential cost savings foregone by eliminating access to DS-1 and DS-3 UNEs is now calculated assuming a linear market demand curve for DS-1 or DS-3-based retail services with demand elasticities at initial market equilibria of -1.31 and -1.91, respectively. Results are given in Table 4.

²⁹ *Id.*, Figure 31.

³⁰ *Id.*, Figure 42.

³¹ *Id.*, Figure 41.

³² See, for example, <http://geoquote.net/>

Table 4
Retail Price Change and Change in Consumer Surplus
With Use of UNE Rates vs. Special Access Rates

	DS1	DS3	Total
Initial retail price	\$900.00	\$8,000.00	
New equilibrium price	\$601.38	\$5,806.84	
Pct. demand change	+43.5%	+52.4%	
Pct. change in consumer surplus	+105.8%	+132.1%	
Dollar change in consumer surplus	\$8,796,623,883	\$4,177,223,062	\$12,973,846,946
Cumulative over 10 years	\$87,966,238,830	\$41,772,230,620	\$129,738,469,460

Wider Employment Benefits Foregone by Elimination of DS-1 and DS-3 UNEs

In addition to the economic effects that are felt within the telecommunications services market from the elimination of UNE access to DS-1 and DS-3 high capacity services, effects also spill over into the general economy. The Bureau of Economic Analysis of the Department of Commerce publishes employment multipliers for various industry segments. For the telecommunications sector, the spillover multiplier on employment is 17.5.³³ In other words, each extra million dollars of telecommunications final demand generates 17.5 new jobs. On this basis, the increased telecommunications sales resulting from the universal availability of DS-1 and DS-3 UNEs would be expected to generate close to 43,000 new jobs in the first year and over 426,000 new jobs over the first ten years.

Table 5
New Jobs Created
With Use of UNE Rates vs. Special Access Rates

	1st Year	10 years
Employment multiplier	17.5	175.0
New jobs created	42,649	426,490

³³ See, RIMS II Multipliers, Table 1.4.